

## Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

### I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name:   
Address:   
City:   
State:  Zip Code:

B. DUNS No.

II. Is the applicant currently receiving EPA Assistance? ☒ Yes ☐ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

See "epa\_form\_4700\_4\_0 Q3" attachments in Other Attachments Form V1.2 (Three attachments)

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

See "epa\_form\_4700\_4\_0 Q4" attachments in Other Attachments Form V1.2 (Two attachments)

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

See "epa\_form\_4700\_4\_0 Q5" attachments in Other Attachments Form V1.2 (Two attachments)

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☒ Yes ☐ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☒ Yes ☐ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.**

Judith Perkins, Director of Personnel  
133 William Street, room 212  
New Bedford, MA 02740  
508-979-1444  
judith.perkins@newbedford-ma.gov

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.**

<http://www.newbedford-ma.gov/personnel/wp-content/uploads/sites/45/docs/2-Anti-Discriminatory-Harassment-Policy-2017.pdf>

**For the Applicant/Recipient**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Michele S Paul

B. Title of Authorized Official

Director Resilience & Env Stewardship

C. Date

03/25/2022

**For the U.S. Environmental Protection Agency**

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. \*Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

**\* See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. \* Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.



# EPA KEY CONTACTS FORM

OMB Number: 2030-0020  
Expiration Date: 06/30/2024

**Authorized Representative:** *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

**Name:** Prefix:  First Name: MICHELE S. Middle Name: W.  
Last Name: PAUL Suffix:

**Title:**

**Complete Address:**

**Street1:** 133 William Street, New Bedford  
**Street2:** Room 304  
**City:** New Bedford **State:** MA: Massachusetts  
**Zip / Postal Code:** 02740 **Country:** USA: UNITED STATES  
**Phone Number:** 15089791487 **Fax Number:**   
**E-mail Address:** michele.paul@newbedford-ma.gov

**Payee:** *Individual authorized to accept payments.*

**Name:** Prefix:  First Name: Renee Middle Name: W.  
Last Name: Fernandes Suffix:

**Title:** Treasurer

**Complete Address:**

**Street1:** 133 William Street, New Bedford  
**Street2:** Room 104  
**City:** New Bedford **State:** MA: Massachusetts  
**Zip / Postal Code:** 02740 **Country:** USA: UNITED STATES  
**Phone Number:** 15089791487 **Fax Number:**   
**E-mail Address:** michele.paul@newbedford-ma.gov

**Administrative Contact:** *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

**Name:** Prefix:  First Name: Teresa Middle Name: W.  
Last Name: Alves Suffix:

**Title:** Administrative Coordinator

**Complete Address:**

**Street1:** 133 William Street, New Bedford  
**Street2:** Room 304  
**City:** New Bedford **State:** MA: Massachusetts  
**Zip / Postal Code:** 02740 **Country:** USA: UNITED STATES  
**Phone Number:** 15089791487 **Fax Number:**   
**E-mail Address:** michele.paul@newbedford-ma.gov

# EPA KEY CONTACTS FORM

**Project Manager:** *Individual responsible for the technical completion of the proposed work.*

**Name:** **Prefix:**  **First Name:**  **Middle Name:**

**Last Name:**  **Suffix:**

**Title:**

**Complete Address:**

**Street1:**

**Street2:**

**City:**

**State:**

**Zip / Postal Code:**

**Country:**

**Phone Number:**

**Fax Number:**

**E-mail Address:**

## Other Attachment File(s)

---

\* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

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To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment

## Project Narrative File(s)

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\* **Mandatory Project Narrative File Filename:**

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

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To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

# BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006  
Expiration Date: 02/28/2022

## SECTION A - BUDGET SUMMARY

Grant Program Function or Activity  (a)	Catalog of Federal Domestic Assistance Number  (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Enhanced Air Quality Monitoring for Communities EPA-OAR- OAQPS-22-01	66.034	\$	\$	\$ 390,453.07	\$ 0.00	\$ 390,453.07
2.						
3.						
4.						
5. Totals		\$	\$	\$ 390,453.07	\$ 0.00	\$ 390,453.07

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# SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Enhanced Air Quality Monitoring for Communities EPA-OAR-OAQPS-22-01				
a. Personnel	\$ 0.00	\$	\$	\$	\$ 0.00
b. Fringe Benefits	0.00				0.00
c. Travel	1,368.90				1,368.90
d. Equipment	112,023.85				112,023.85
e. Supplies	6,000.00				6,000.00
f. Contractual	33,000.00				33,000.00
g. Construction	0.00				0.00
h. Other	238,060.32				238,060.32
i. Total Direct Charges (sum of 6a-6h)	390,453.07				\$ 390,453.07
j. Indirect Charges	0.00				\$ 0.00
k. TOTALS (sum of 6i and 6j)	\$ 390,453.07	\$	\$	\$	\$ 390,453.07
7. Program Income	\$ 0.00	\$	\$	\$	\$ 0.00

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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. Enhanced Air Quality Monitoring for Communities EPA-OAR-OAQPS-22-01	\$ 0.00	\$ 0.00	\$	\$ 0.00
9.				
10.				
11.				
12. TOTAL (sum of lines 8-11)	\$ 0.00	\$ 0.00	\$	\$ 0.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 194,623.85	\$ 134,023.85	\$ 20,200.00	\$ 20,200.00	\$ 20,200.00
14. Non-Federal	\$				
15. TOTAL (sum of lines 13 and 14)	\$ 194,623.85	\$ 134,023.85	\$ 20,200.00	\$ 20,200.00	\$ 20,200.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. Enhanced Air Quality Monitoring for Communities EPA-OAR-OAQPS-22-01	\$ 194,623.85	\$ 100,000.00	\$ 95,829.22	\$
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	\$ 194,623.85	\$ 100,000.00	\$ 95,829.22	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges:
23. Remarks:	

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## Application for Federal Assistance SF-424

**\* 1. Type of Submission:**

- ☐ Preapplication  
☒ Application  
☐ Changed/Corrected Application

**\* 2. Type of Application:**

- ☒ New  
☐ Continuation  
☐ Revision

**\* If Revision, select appropriate letter(s):**

**\* Other (Specify):**

**\* 3. Date Received:**

03/25/2022

**4. Applicant Identifier:**

**5a. Federal Entity Identifier:**

**5b. Federal Award Identifier:**

**State Use Only:**

**6. Date Received by State:**

**7. State Application Identifier:**

**8. APPLICANT INFORMATION:**

**\* a. Legal Name:**

New Bedford, City of (Inc.)

**\* b. Employer/Taxpayer Identification Number (EIN/TIN):**

04-6001402

**\* c. Organizational DUNS:**

0757191870000

**d. Address:**

**\* Street1:**

133 William Street, New Bedford

**Street2:**

**\* City:**

New Bedford

**County/Parish:**

**\* State:**

MA: Massachusetts

**Province:**

**\* Country:**

USA: UNITED STATES

**\* Zip / Postal Code:**

02740-0000

**e. Organizational Unit:**

**Department Name:**

Resilience & Env. Stewardship

**Division Name:**

**f. Name and contact information of person to be contacted on matters involving this application:**

**Prefix:**

**\* First Name:**

MICHELE

**Middle Name:**

S.W.

**\* Last Name:**

PAUL

**Suffix:**

**Title:** Director Resilience & Env Stewardship

**Organizational Affiliation:**

City of New Bedford, MA

**\* Telephone Number:**

15089791487

**Fax Number:**

**\* Email:** michele.paul@newbedford-ma.gov

## Application for Federal Assistance SF-424

### \* 9. Type of Applicant 1: Select Applicant Type:

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\* Other (specify):

### \* 10. Name of Federal Agency:

Environmental Protection Agency

### 11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities  
Relating to the Clean Air Act

### \* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

\* Title:

Enhanced Air Quality Monitoring for Communities

### 13. Competition Identification Number:

Title:

### 14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

### \* 15. Descriptive Title of Applicant's Project:

City-wide air quality monitoring and source identification for healthier outcomes

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

**Application for Federal Assistance SF-424****16. Congressional Districts Of:**\* a. Applicant \* b. Program/Project 

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

**17. Proposed Project:**\* a. Start Date: \* b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="391,821.97"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="391,821.97"/>

**\* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

**\* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

**21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ \*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

**Authorized Representative:**

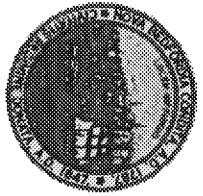
Prefix:  \* First Name:

Middle Name:

\* Last Name:

Suffix:

\* Title: \* Telephone Number:  Fax Number: \* Email: \* Signature of Authorized Representative:  \* Date Signed:



# City of New Bedford

## Case Report - grouped Type

Open Cases - MCAD Q.V  
Decisions: 03/04/2020 - 03/04/2022

Type: MCAD

MCAD

Category: Litigation Type: MCAD Status: OPEN Docket No.: 21NEM01883 Date of Loss: ##### Claim Amount: \$0.00  
Plaintiff: Murray, John Defendant New Bedford Public Schools  
Summary: discrimination on the basis of disability while out of work with COVID -19 symptoms  
Disposition: pending

CSNo: 300-2022-40-2 Department: School Date opened: 2/15/2022 Date closed: 21688

Category: Litigation Type: MCAD Status: OPEN Docket No.: 22NEM00139 Date of Loss: 8/23/2021 Claim Amount:  
Plaintiff: Jones, Randy Defendant

Summary: Discrimination on the basis of sex, race, color & retaliation on 8/23/21  
Disposition: pending

CSNo: 300-2022-40-1 Department: School Date opened: 2/8/2022 Date closed: 21679

Category: Litigation Type: MCAD Status: OPEN Docket No.: 21BEM02984 Date of Loss: ##### Claim Amount: \$0.00  
Plaintiff: Bryan, Kirsten Defendant City of New Bedford

Summary: Discrimination on basis of race, color, retaliation & disability from 11/27/17 - 9/20/2020  
Disposition: pending

CSNo: 175-2022-40-1 Department: Planning Date opened: 1/25/2022 Date closed: 21666

Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 21NEM01398      Date of Loss: 3/5/2021      Claim Amount: \$1.00  
Plaintiff: Francis, Steven      Defendant: New Bedford Fire Department  
Summary: Claimant believes he was discriminated against by the New Bedford Fire Department on the basis of retaliation  
Disposition: Pending

21539

CSNo: 220-2021-40-4      Department: Fire      Date opened: 8/9/2021      Date closed:  
Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 2173CV0049      Date of Loss: 7/8/2021      Claim Amount: \$0.00  
Plaintiff: Oliveira, Bryan D.      Defendant: City of New Bedford, Joseph Cordeiro, Paul Oliveira & Adelino Sousa  
Summary: Plaintiff alleges that he was discriminated by the Police Department on the basis of sex, sex discrimination harassment; retaliation  
Disposition: Pending      please refer to file #210-2020-40-2      9/22/20      EEOC - Dismissal and Notice of Rights

21504

CSNo: 210-2021-40-17      Department: Police      Date opened: 7/20/2021      Date closed:  
Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 2173CV0041      Date of Loss: 6/30/2021      Claim Amount: \$0.00  
Plaintiff: Saunders, Macaila      Defendant: City of New Bedford; Joseph Cordeiro, Scott Carola & Adelino Sousa  
Summary: Plaintiff allege that she was discriminated by the Police Department on the basis of sex and a hostile work environment  
Disposition: Pending      please refer to file #210-2020-40-3

21467

CSNo: 210-2021-40-10      Department: Police      Date opened: 6/15/2021      Date closed:  
Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 21NEM00170      Date of Loss: 1/4/2021      Claim Amount: \$0.00  
Plaintiff: Francis, Steven      Defendant: New Bedford Fire Department  
Summary: discrimination on the basis of disability and race/color  
Disposition: Pending

21451

CSNo: 220-2021-40-3      Department: Fire      Date opened: 5/20/2021      Date closed:

Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 21NEM00582      Date of Loss: 7/17/2020      Claim Amount: \$0.00  
 Plaintiff: Richards, Alexandra      Defendant: New Bedford Police Department  
 Summary: Claimant believes she was discriminated by the NB Police Department on the basis of sex, sexual orientation, race and color  
 Disposition: Pending

CSNo: 210-2021-40-7      Department: Police      Date opened: 4/27/2021      Date closed: 21436  
 Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 21NEM00174      Date of Loss: 1/4/2021      Claim Amount: \$0.00  
 Plaintiff: Francis, Steven      Defendant: New Bedford Fire Department  
 Summary: discrimination on the bases of disability and race/color  
 Disposition: Pending

CSNo: 220-2021-40-1      Department: Fire      Date opened: 2/19/2021      Date closed: 21382  
 Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 20NEM02171      Date of Loss: 1/31/2020      Claim Amount: \$0.00  
 Plaintiff: Calderon, Richard      Defendant: City of New Bedford  
 Summary: discrimination of age, race and color and retaliated against  
 Disposition: pending

CSNo: 138-2020-40-1      Department: Purchasing      Date opened: 12/3/2020      Date closed: 21296  
 Category: Litigation      Type: MCAD      Status: OPEN      Docket No.: 20BEM01719      Date of Loss: 8/1/2020      Claim Amount: \$0.00  
 Plaintiff: Jesus, Michael      Defendant: City of New Bedford  
 Summary: age discrimination  
 Disposition: pending

CSNo: 210-2020-40-15      Department: Police      Date opened: 12/3/2020      Date closed: 21295  
 Total Cases for Type : MCAD      11  
 Total Cases for ALL Types : 11



Manifest for Grant Application # GRANT13580207

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 22378 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments\_1\_2-V1.2.pdf (size 16031 bytes)

2. Form SF424\_3\_0-V3.0.pdf (size 24153 bytes)

3. Form SF424A-V1.0.pdf (size 23030 bytes)

4. Form EPA4700\_4\_3\_0-V3.0.pdf (size 22879 bytes)

5. Form OtherNarrativeAttachments\_1\_2-V1.2.pdf (size 15914 bytes)

6. Form EPA\_KeyContacts\_2\_0-V2.0.pdf (size 37328 bytes)

Attachments Included in Zip File (total 3):

1. ProjectNarrativeAttachments\_1\_2 ProjectNarrativeAttachments\_1\_2-Attachments-1234-Final New Bedford AQM Application.pdf application/pdf (size 2752024 bytes)

2. ProjectNarrativeAttachments\_1\_2 ProjectNarrativeAttachments\_1\_2-Attachments-1235-All Attachments Final.pdf application/pdf (size 3426889 bytes)

3. OtherNarrativeAttachments\_1\_2 OtherNarrativeAttachments\_1\_2-Attachments-1236-epa\_form\_4700\_4\_0 Q5 - Open MCAD.pdf application/pdf (size 75889 bytes)



MAYOR  
JON MITCHELL

**City of New Bedford Conservation Commission •**  
**Department of Resilience and Environmental Stewardship**  
133 William Street • Room 304 • New Bedford, Massachusetts 02740  
Telephone: (508) 991.6188  
Conservation • Environmental Stewardship • Resilience

March 25, 2022

**Project Title:** New Bedford City-Wide Air Quality Monitoring Program

**Applicant Information:**

City of New Bedford – Department of Resilience and Environmental Stewardship  
133 William Street – Room 304  
New Bedford, MA 02740  
Contact – Michele Paul, 508-979-1487, [michele.paul@newbedford-ma.gov](mailto:michele.paul@newbedford-ma.gov)  
Duns No. 075719187

**Set-Aside:** No Set-Aside

**Brief Description of Applicant Organization:** The City of New Bedford is a Commonwealth of Massachusetts municipality of 101,079 residents. The City's Department of Resilience and Environmental Stewardship's mission is to maximize New Bedford's resilience and potential to thrive through the protection and restoration of our environment to foster the safety, health, and wellness of our citizens. We are currently managing a Brownfields Environmental Workforce Jobs Training Grant, a Brownfield Revolving Loan Fund Grant, a Brownfield Cleanup Grant, and a Brownfield Multi-Purpose Grant.

**Project Partners:** Groundwork South Coast

**Project Location:** New Bedford, Massachusetts (U.S. Postal Zip Codes 02740-02746) proposes to monitor air quality using monitors at 20 locations throughout and within the City, where approximately 78% of its residents live in Environmental Justice block groups.

**Air Pollutant Scope:** Nitrogen Dioxide (NO<sub>2</sub>), Particulates PM<sub>2.5</sub>, Total Volatile Organic Compounds (TVOCs), Ozone (O<sub>3</sub>), Carbon Dioxide (CO<sub>2</sub>) and Carbon Monoxide (CO)

**Budget Summary:**

EPA Funding Requested	Total Project Cost
\$390,453.07	\$390,453.07

**Project Period:** October 1, 2022 - September 30, 2025

**Short Project Description:** This project will identify disparities relative to health and corresponding air quality among EJ communities to inform public policy and realize equitable health outcomes.



133 William Street-Room 304, New Bedford, MA 02740 - Telephone 508-991-6188

ED\_013931A\_00001090-00001

## **1. Project Summary and Approach:**

### **A. Overall Project:**

New Bedford Massachusetts is a historic New England industrial city of 101,079 residents. Once the wealthiest U.S. city per capita during the 19<sup>th</sup> century peak of the whaling industry, New Bedford and its residents have continuously had to adapt and learn new skill sets over the past two centuries. After decades of hosting industries like textile, leather goods, tire and rubber, electrical capacitor, and metal products manufacturing, New Bedford is now home to two Superfund sites and numerous Brownfield sites. The City of New Bedford has developed an aggressive and robust Brownfields program over the past 25 years and we continue to work with our federal and state partners to address the legacy issues that remain. Despite these significant strides, our many Environmental Justice (EJ) neighborhoods that began with an immigrant workforce – and have become the economic backbone of the City – have yet to experience the full benefit from this progress.

In 2018, the City of New Bedford completed its first Climate Action and Resilience Plan: *NB Resilient*. The NB Resilient vision for New Bedford is a “thriving, self-sustaining community that is culturally and historically secure and is ready to implement innovative approaches to prepare for tomorrow’s possibilities.” Key to resilience is awareness of vulnerabilities and stressors. This Community Air Monitoring Grant will provide equipment and expertise to gather air quality data and to document and understand disparities within the City that create or exacerbate negative health outcomes. This information will provide our community-based partner, Groundwork Southcoast<sup>1</sup> (GWSC), with the data to lead outreach and education efforts within each neighborhood based on site-specific results. GWSC employs low-income youth and young adults to become environmental leaders in their communities. GWSC will lead community-based and multi-lingual outreach and engagement efforts throughout this air quality monitoring project. It will also afford the City the science-based data to reshape policy and to affect physical change where feasible.

To make progress on EPA Strategic Goal #4: “Ensure Clean and Healthy Air for All Communities”, the City and GWSC propose to deploy 20 solar-powered air quality sensors at strategic locations throughout the 20 square-mile City of New Bedford. We intend to collect data for NO<sub>2</sub>, and PM<sub>2.5</sub>, at each location and to strategically add O<sub>3</sub>, CO, CO<sub>2</sub>, and total volatile organic compounds (TVOCs) where appropriate. The City and GWSC have been working with Clarity to develop a network of up to 20 solar-powered NO<sub>2</sub>, and PM<sub>2.5</sub> monitors. Clarity provides support services together with the monitors to ensure that the City-GWSC team have access to technical expertise for proper deployment, calibration, and ongoing troubleshooting to ensure quality data over the entire three-year project period. 2B Technologies has also provided pricing and specifications for up to 5 monitors that will collect data for NO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, TVOCs, CO, and CO<sub>2</sub> at locations close to major highways and/or New Bedford Harbor, home to the largest fishing port in the U.S. Notwithstanding the use of Clarity and 2B Technology information in this application, the City and GWSC will follow all requisite state and federal procurement protocols to obtain this equipment and support services.

### **B. Project Significance:**

New Bedford cannot be truly resilient until we fully understand the impacts of everyday conditions on all of our residents and take action toward equity and measurable results.

New Bedford is home to a disproportionate number of children with asthma. During the 2011-2012 school year, more than three out of every 20 New Bedford children (or 15.1%) in Kindergarten through

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<sup>1</sup> Groundwork Southcoast



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8th grade had asthma, a significantly higher prevalence than for K–8 students statewide (11.9%). Asthma prevalence is higher in lower income urban neighborhoods and reducing pollutants in these neighborhoods is key to preventing school absences and hospitalizations.<sup>2</sup> Asthma exacerbates the symptoms of respiratory diseases like COVID-19, and New Bedford's Health Department reported that a quarter of all COVID-19 cases in the City from September to November 2021 were among children under 14.

As recently as mid-January 2022 and with full vaccination rate of 55% among residents aged 12 and older, New Bedford experienced a 57% spike in COVID-19 cases in a single week among the general population, as well as case increases in New Bedford Public School students (52%) and staff (41%). These numbers have steadily decreased since, but many of New Bedford's EJ neighborhoods remain disproportionately vulnerable to changing conditions and new variants. Although New Bedford responded swiftly and comprehensively at the onset of the pandemic, close living and working conditions, particularly among our immigrant communities, continue to challenge control of the disease. Many of the City's residents reside in urban centers in multi-family tenement housing with several generations sharing the same unit, making social distancing and isolating impossible.

New Bedford has been home to the largest fishing port in the U.S. in terms of annual catch for the past 20 years and the City's proactive response to COVID-19 was highlighted in a February 2021 National Geographic feature: " By May 1 [2020]—when most other U.S. testing protocols still required proof of high-risk travel or displayed symptoms—the city's health department had partnered with a local health-care provider, Southcoast Health, to turn mobile units normally used as flu clinics into COVID-19 testing centers that could meet ships at the pier... With results available in 24 to 48 hours, Southcoast could vet crew members during the two- to three-day windows they remain on shore between fishing trips. Suddenly, these boats were not outbreaks waiting to happen but ideal places for crewmates to "bubble" in safety."

Front line workers in the fish processing plants did not fare as well through the pandemic with language barriers and small workspaces, often resulting in entire shifts falling ill. In addition to the high illness rates, these workers were already experiencing inconsistencies in daily load due to climate impacts and industry policy issues and were hit especially hard by additional interruptions due to COVID and new distancing protocols. The vast majority of these workers live in the City's EJ communities close to their workplaces. New Bedford Harbor will be a key location for monitoring due to the number of potential pollution sources and the number of EJ residents who spend hours every day working the docks and in the processing plants.

Construction of Interstate 195 began in the 1950s, bisecting the City from east to west, and resulting in the leveling of hundreds of low-income residential units that were not replaced. In the early 1970s the City built Hayden McFadden Elementary School (HayMac) in the shadow of this raised highway. Of HayMac's 180 kindergarten and pre-K students<sup>3</sup>, 96% are high needs, 89% are low income, 56% are English language learners (ELL), 17% have disabilities, and 84% are children of color.

Route 18, built in the 1960s and displacing hundreds of additional residential units, bisects the City from north to south and separates a historic waterfront neighborhood from New Bedford Harbor. A.J. Gomes

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<sup>2</sup> [download \(mass.gov\)](https://www.mass.gov/info-details/covid-19-asthma); MA Department of Public Health

<sup>3</sup> [Enrollment Data \(2021-22\) - New Bedford \(02010000\) \(mass.edu\)](https://data.mass.gov/enrollment-data-2021-22-new-bedford-02010000); Data was not available for the general student population at Hayden McFadden.



Elementary School (Gomes) was built in the late 1970s along Route 18. Of Gomes' 502 students, 96% are high needs, 91% are low income, 58% are ELL, 19% have disabilities, and 86% are children of color.

The HayMac and Gomes neighborhoods will also be two key locations in this monitoring project where we anticipate higher air pollutant concentrations than in some of the areas of lower traffic volume.

The Project Monitoring Location Plan on page 12 shows monitoring locations that have been strategically selected based on their proximity to EJ populations, suspected sources of pollution, and/or for background comparison. These locations and the targeted analytes, summarized below, may be modified based on community feedback or other specific issues.

1. The City of New Bedford owns a parcel adjacent to the Route 140 N on-ramp at the entrance to the New Bedford Industrial Park. This parcel abuts a minority designated EJ census tract. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, TVOCs, CO, and CO<sub>2</sub>
2. Pine Hill Park is a small recreational area adjacent immediately southeast of the Industrial Park and adjacent to an EJ census tract (minority). Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
3. Greater New Bedford Regional Vocational Technical High School (GNBVHS) serves more than 2,000 students and is in a minority EJ census tract. The project team will locate an air monitor on the campus or on an adjacent City-owned parcel. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
4. The Kings Highway/Route 140 interchange location is in a minority EJ census tract. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
5. New Bedford Regional Airport is a municipally-owned commercial-service airport, located centrally in the City and consisting of approximately 178-acres of land in a minority EJ census tract. The airport houses a National Weather Service monitoring station that records temperature, dewpoint, wind speed and direction and measures the daily rain fall. Coordination and support from the Airport Commission and Director is provided in the Attachment 1. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
6. Brooklawn Park is a 65-acre park that abuts four residential EJ census tracts based on income and/or minority designation. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
7. Brook Street neighborhood is in a minority, income, and language EJ neighborhood and is also home to a large outdoor tire recycling facility which is a suspected air pollutant source. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
8. The Presidential Heights Low Income Housing Development is located in a minority, income, and language EJ neighborhood. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
9. The east end of Coffin Avenue is along the upper New Bedford Harbor in an area of current and past industrial use where a walking path is being planned, pending the completion of the EPA Superfund cleanup. The location is in a minority, income, and language-designated EJ neighborhood. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
10. The State Street extension was selected based on its location beneath I195 in a minority, income, and language-designated EJ neighborhood, and the proximity to Hayden-McFadden Elementary School described above. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, TVOCs, CO, and CO<sub>2</sub>
11. The Belleville Avenue Playground is located on the south side of I 195 East in a minority/income-designated EJ neighborhood along New Bedford Harbor. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
12. The Parker Street Waste Site was the location of historic industrial dumping. The City has worked with its state and federal partners to clean up these properties and to achieve regulatory compliance. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>



13. Buttonwood Park is an 85-acre Olmsted Park located at the entrance to the City at the end of Route 140 and abutting minority/income census tracts. With a Senior Center, 10-acre pond, several recreational sport fields and courts, playgrounds, a municipal library and a 49-acre municipally owned zoo, the park is frequented regularly by for recreational and educational purposes. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
14. St. Luke's Hospital is a major network hospital and the only one in the city with the closest about 30 minutes away. The project team will deploy an air monitor in a city-owned parking lot utilized by hospital visitors proximal to minority/income EJ neighborhoods. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
15. The MassHire New Bedford Career Center building is in a prime location to the busy New Bedford waterfront and port, as well as abutting the Southcoast Rail Commuter Station which will connect New Bedford with Boston in 2024. This location in a minority/income EJ census tract abuts another outdoor tire recycling facility. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
16. Fisherman's Wharf (Pier 3), located in a minority/income-designated EJ census tract, is part of the nation's most valuable fishing port which sees some of the highest volume of vehicular and maritime related traffic in the City. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, TVOCs, CO, and CO<sub>2</sub>
17. The New Bedford Port Authority has committed to supporting this project and their headquarters is an ideal location due to its location in a minority, income, and language EJ neighborhood, proximity to the port and to the AJ Gomes School located across Route 18. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, TVOCs, CO, and CO<sub>2</sub>
18. We propose to deploy a monitor at the traffic triangle at Cove Road and County located in a minority, income, and language EJ neighborhood. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>
19. Brittany Global Technologies is located at the entrance to New Bedford Harbor in a minority-designated EJ census tract and is a textile manufacturer and printing company. We propose to deploy a monitor on City property abutting this facility. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>, O<sub>3</sub>, TVOCs, CO, and CO<sub>2</sub>
20. The New Bedford Cable Access Station building, in a minority-designated census tract, is at the southern end of the Harbor and abuts the New Bedford Wastewater Treatment Plant. Target analytes: NO<sub>2</sub>, PM<sub>2.5</sub>

## **2. Community Involvement**

### **A. Community Partnerships:**

Letters of Support are included as Attachment 2. As stated in Section 1.A, GWSC will be a key project partner in this Enhanced Air Quality Monitoring for Communities Grant project. The City will work closely with GWSC to collect and evaluate data. This partnership GWSC will not only expand project team capacity but is an invaluable opportunity for GWSC youth to have a hands-on learning experience with monitoring equipment to gather information about their own neighborhood environments, share it within their communities, and have the potential to affect positive change. The New Bedford Health Department has committed to participate in outreach and screening, and in evaluating data and to help develop a public facing summary that the City can share on its website and that GWSC can bring to neighborhood groups, other community-based organizations, and stakeholders.

The New Bedford Port Authority (NBPA) are eager to partner on this project, specifically asking that New Bedford Harbor be included in monitoring locations. The City has been working with the NBPA on several resilience initiatives over the past several years including the evaluation of Port infrastructure and the development of Port Design Guidelines that incorporate sea level rise. The NBPA is looking to positively affect pollutant reduction through shoreside electrification and other measures.



In addition to New Bedford's Health Department, we will work with staff at the City's Water Treatment Plant, Wastewater Treatment Plant, and Municipal Airport. Each of these facilities, located in geographically diverse locations, has a weather station that we will collect data from to inform data interpretation. The New Bedford Public School Department has also agreed to partner with the City and will seek opportunities to incorporate this real-world project into STEM curriculum.

The Community Economic Development Center (CEDC) is an invaluable partner to the City on numerous initiatives, particularly with our growing Guatemalan and Hispanic communities. The CEDC regularly communicates City initiatives and joint projects with their clientele. The City is currently working to support CEDC's development of a Resilience Hub to expand services to this EJ population.

The Massachusetts Department of Environmental Protection's (MassDEP's) Air Assessment Branch has committed to providing the City team with technical assistance during this project, as described in their letter of support. MassDEP does not currently have any monitors in the City but does have one in an adjacent town. We intend to work with MassDEP to collocate one of the project monitors with the nearby monitor for calibration purposes, and to continue to work together to evaluate data and draw conclusions.

#### **B. Community Engagement:**

The City and GWSC will work with the community partners listed above to develop a robust public engagement strategy. To launch the project the City will issue a press release to English, Spanish, and Portuguese media and post to its Facebook and Twitter social media accounts. Our partners will also share the launch through their own accounts. We will solicit feedback and questions about the program at neighborhood meetings, on social media, and join other community events to reach a wider audience. We will make print and in-person outreach available in Portuguese and Spanish. We will also create a tile on our [NB Resilient Dashboard](#) with the program description and a comment space to ask questions or make suggestions.

As the program progresses, we will share data and trends at with the community at additional neighborhood meetings and using our NB Resilient Dashboard. We will provide interim project summaries during the project to elicit dialogue and input from the community. We will take notes at each meeting, highlighting public input. Based on data variability and community input, monitoring locations may change or be added.

### **3. Environmental Justice and Underserved Communities:**

The data collected through the monitoring program and the resulting correlations are tools that will be used to qualify and quantify extent to which disparities exist and provide benchmarks for improvement. While it makes sense that a neighborhood located beneath or adjacent to a highway is disproportionately burdened by associated pollutants, the numbers will provide the details necessary to demonstrate needed improvements and policy change. While industrial emissions have improved over the past half decade, better is not enough and we must create benchmarks to understand the neighborhoods left behind and the equity work left to do.

Massachusetts' EJ Mapper<sup>4</sup> shows that over 75% of New Bedford is an Environmental Justice area based on minority status, poverty, and/or language isolation. HayMac and Gomes Schools are in

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<sup>4</sup> [Massachusetts 2020 Environmental Justice Populations \(arcgis.com\)](#)



neighborhoods where *all three criteria apply*. According to EPA's EJ Screen Report<sup>5</sup> for New Bedford, the City ranks between the 64<sup>th</sup> and 92<sup>nd</sup> percentile for ALL EJ indexes for the United States and between the 79<sup>th</sup> and 99<sup>th</sup> in EPA Region 1.

#### **4. Environmental Results – Outputs, Outcomes and Performance Measures:**

##### **A. Expected Project Outputs and Outcomes**

Outputs:

- Deploy a network of continuous air monitors at locations that provide accurate representation of underserved Environmental Justice Communities
- Identify prevalence of air pollutants in each area of the City.
- Identify source(s) of pollutants.
- Evaluate correlations between health statistics, demographic/geographic groupings, and quality data.
- Create new and strengthen existing community partnerships through information sharing and dialogue about potential correlations and actions.
- Educate the community, particularly youth, about potential behavioral modifications toward health outcomes.

Outcomes: (S = short-term, I = intermediate, L = long-term)

- S Increase access to air quality data on public platform
- S Increase understanding of air quality components and health implications
- S Increase health screenings and awareness of support networks and programs
- I Evaluate source area compliance issues and identify necessary action if any.
- I Evaluate potential mitigation measures and responsibility.
- I Implement and advocate for actions and policies that will reduce air pollutants
- I Increase positive self-health behaviors.
- L Document reduction in pollutants following priority action implementation.
- L Reduce childhood asthma and neighborhood disparities in same.
- L Reduce pulmonary-related premature deaths and neighborhood disparities in same.

##### **B. Performance Measures and Plan**

Following the initial announcement of the grant we will prepare and launch the "Air Quality" tile on the NB Resilient Dashboard, populated with air pollutant and related health information. We, GWSC, and the New Bedford Health Department will hold at least three initial public meetings to introduce the project, to solicit feedback about monitoring locations, and to provide health screenings. As we have included five additional NO<sub>2</sub>/ PM<sub>2.5</sub> monitors, we will have the ability to add to the proposed network at initial deployment or during the project based on public feedback. We will announce these meetings in printed media, on local radio, and will post meeting and educational information to social media with links to provide feedback electronically. We will track attendance at meetings and social media responses to gauge engagement effectiveness and modify/add opportunities as appropriate. We will also document the general health screening information as appropriate in accordance with HIPAA. During this initial phase we will also engage with New Bedford Public Schools to support STEM curriculum. We will incorporate self-health improving behaviors into all outreach to underscore the cumulative nature of conditions that influence health outcomes.

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<sup>5</sup> EJScreen ([epa.gov](http://epa.gov))





After deployment we will evaluate both weather and air quality data and look for results and trends that point to potential focus areas. We will track these over the initial 3-6 months, and where concentrations are higher, we will look for potential point and non-point sources. During this initial evaluation period, we will meet with the communities to share early information and additional educational material and next steps. We will share data on the dashboard, and provide as much of the real-time data as practicable on an on-going basis. We anticipate holding at least one meeting per month with one or more groups and will participate in existing neighborhood meetings as well. We will discuss data and trends and solicit dialogue about trend and health implications, potential sources and potential approaches to address mitigation or other actions that the City and/or community can undertake. We will document participation and meeting summaries including community feedback.

We will work with the community to develop priority actions and identify who will and/or must take the lead. Where enforcement and/or policy change can lead to air quality improvements, the City will take action itself or advocate for action by a higher jurisdictional entity. We will meet and work with private industry where appropriate to develop and implement mitigation actions. All work completed during the grant duration will be documented in the summary report that will be available on the Air Quality Tile on the NB Resilient Dashboard.

Following the completion of the grant-funded program, we will monitor health outcomes including childhood asthma and pulmonary disease to document improvement and program success.

### **C. Timeline and Milestones**

The City and GWSC will procure the monitors within three months of project award and anticipate technical assistance, calibration, and full deployment of the network within six months of award. This schedule will provide a full 30 months of data collection.

Coincident with procurement, the project team will launch the project with multilingual press releases, social media posts, and community meetings as described in Section 2.B and 3.B above. We will create and post the NB Resilient Dashboard Air Monitoring Tile within 60 days of grant award and make the monitoring data available on a public-facing platform upon network deployment. The project team will prepare evaluation summaries every six months and a final summary report at the conclusion of the grant period.

### **5. Quality Assurance Statement:**

The Project Partners will collaboratively establish and operationalize a continuous project Quality Assurance Plan for the full duration of the proposed project in three steps:

- **Planning:** For each project, the Clarity team will develop a QA plan jointly with project partners to ensure the quality and robustness of data. This includes identification of appropriate colocation sites (*including existing colocation activities*), characterization/review of the initially proposed sensor locations, and agreement on key metrics required for consistent QC.
- **Implementation:** The project team will work jointly to implement the QA plan, including setting up colocations with regulatory FEM/FRM monitors operated by the Massachusetts Department of Environmental Protection. Clarity will develop project or region-specific calibration models to adjust the data to a reference monitor, which will be applied to the data in real time. The Clarity Dashboard provides information about ongoing calibration and sensor performance and continuous support is available from the project management team.



- **Assessment:** Assessment of sensor network metrics and calibration performance will be done by Clarity in partnership with the Massachusetts Department of Environmental Protection and City of New Bedford using industry standard metrics for performance evaluation and QA/QC of air sensors.

#### **Quality Control (QC) Activities:**

Notably, Clarity has a previous history of colocation in partnership with the Massachusetts Department of Environmental Protection resulting from a recent competitive contract awarded by the City of Boston. The project team will work to jointly define QC activities to ensure adequate data quality, including developing logic for QA/QC flags which can be used to filter out invalid data, leveraging logic Clarity have developed previously. Clarity is developing additional QA/QC procedures to further ensure data are of adequate quality to support project goals. Many of these planned additions, including refining device status and the addition of automatic QA/QC flags, will be completed during the project timeline.

#### **QA/QC Team:**

The Clarity Project Team includes Dr. Meiling Gao (Chief Operating Officer), who has extensive experience managing low-cost network sensors across the world. Katie Moore, MPH (Environmental Project Manager), has supported management of large and small-scale air quality networks with a focus on environmental justice and community-led monitoring efforts. Levi Stanton (Lead Solutions Engineer) has demonstrated expertise developing robust calibration methodologies and has led numerous projects funded by the U.S. Environmental Protection Agency using low-cost sensors across the world.

#### **Colocation and Clarity's Remote Calibration Process**

The Clarity team works with each project to develop a colocation and calibration plan to fit the team's goals and resources. Clarity's Remote Calibration Process allows for calibration models to be updated with additional data and applied to the raw data in real-time. The raw data for all Clarity Nodes is always retained and available in the Clarity Dashboard and API. The Project Team can continuously view the performance of calibration models / correction factors in real-time from sustained colocation sites to ensure continued performance via the Clarity Dashboard.

### **6. Programmatic Capability and Past Performance:**

#### **A. Past Performance:**

The City of New Bedford currently has five cooperative agreements with EPA and is on schedule and up to date with reporting in ACRES:

- BF 00A00786: Brownfields Multipurpose Grant - \$800,000
- JT 00A00543: Environmental Workforce Job Training - \$200,000
- BF 00A00380: Brownfields Cleanup - \$200,000
- BF00A00545: Brownfield Revolving Loan Fund - \$800,000
- BF 00A00081: Brownfields City-Wide Assessment - \$200,000

We are in the process of managing the first four agreements listed above concurrently and always looking to leverage opportunities between and within each grant scope. The City successfully closed out the Brownfields City-Wide Assessment in September 2021 and submitted the Closeout Report within the required timeframe.

#### **B. Reporting Requirements**

The City has successfully completed requisite reporting in ACRES on time for each of these grants and is on track toward achievement of outputs and outcomes for each. The Brownfields Assessment Grant Closeout report demonstrated significant progress toward site and neighborhood revitalization in the



areas of the City where the grant was utilized. We have built stronger community connections during project meetings and have been able to support new initiatives that enhance neighborhood resilience. We regularly participate in national meetings and webinars to exchange lessons learned and best practices to realize the biggest benefit from the grant program communities and EPA experience and expertise.

### **C. Staff Expertise**

Michele Paul, New Bedford's Director of Resilience and Environmental Stewardship will serve as the Program Manager for this grant. Courtney Cohen, New Bedford's Environmental Project Manager will serve as Project Manager for this grant. Maura Ramsey, Executive Director of Groundwork Southcoast will serve as the GWSC Project Manager. Resumes for these key project personnel are included in Attachment 3.

### **7. Budget:**

The following outlines the costs presented in the Budget Table with detail regarding rationale:

**Personnel:** All City staff time will be provided at no cost to the grant. We have not presented a detailed description of in-kind time as there is no required match. Michele Paul, Director of the New Bedford Department of Resilience and Environmental Stewardship will serve as the Program Manager and Courtney Cohen, City Environmental Project Manager will be the Project Manager. Resumes have been included for both staff. We have also secured commitments from the New Bedford Department of Health, Port Authority, and Public Schools. We have therefore allotted \$0 to the Personnel category in the Budget Table.

**Fringe Benefits:** With no personnel cost to the grant, we have allotted \$0 to the Fringe Benefits category in the Budget Table.

**Travel:** We will travel an average of 15 miles per week within the City between monitoring locations. We have allotted \$1,368.90 for travel using the 2022 Federal mileage allowance of \$0.585/mile.

**Equipment:** To complete this grant application, we worked with vendors who include service and support together with the monitoring hardware and software costs. Therefore, we have included this all under equipment (\$113,392.75) and \$0 under contracted services where a service contract would traditionally be allocated. Please note that although there is no cash or in-kind match required for this grant, both vendors providing technical assistance to this application have offered discounts for this project. All requisite open procurement protocols will be followed.

**Supplies:** While we will work to minimize printed materials, we estimate that \$3,000 will cover printed outreach materials. We are also looking to purchase four (4) tablets to be used to view data, as well as demonstrate the availability of the dashboard to the community at meetings.

**Contractual:** As presented above, support services for the air monitoring equipment is included with the cost of the equipment based on the vendor who assisted with this grant application. Should actual procurement result in separate equipment and support costs, the workplan will be adjusted accordingly pending the approval by EPA. We will add an "Air Quality" tile to our NB Resilient Dashboard which we will populate with educational information regarding pollutants and health implications. We will also prepare professional outreach materials and interim and final reports. We have allocated \$30,000 for these services. While our community partners and City staff regularly provide routine translation for outreach materials and community meetings, we have allocated \$3,000 for translation review of more technical documents to ensure accurate representation of information.

**Subaward Costs:** GWSC anticipates significant time dedicated to this project by its Executive Director, Maura Ramsey (resume included), Community Engagement Coordinator, Community, Systems, and Climate Manager, and youth staff. Hours and rates are provided for each project role as well as combined mileage.



**Indirect Charges:** No indirect charges are anticipated to be required to implement this grant.

As described in Section 3.C., we anticipate full deployment and starting monitoring in the first 6 months of the grant, so we anticipate expending about 50% of the funding in the first year of the grant. The remainder will be expended in approximately equal amounts over the next two years of the grant.

Budget Table

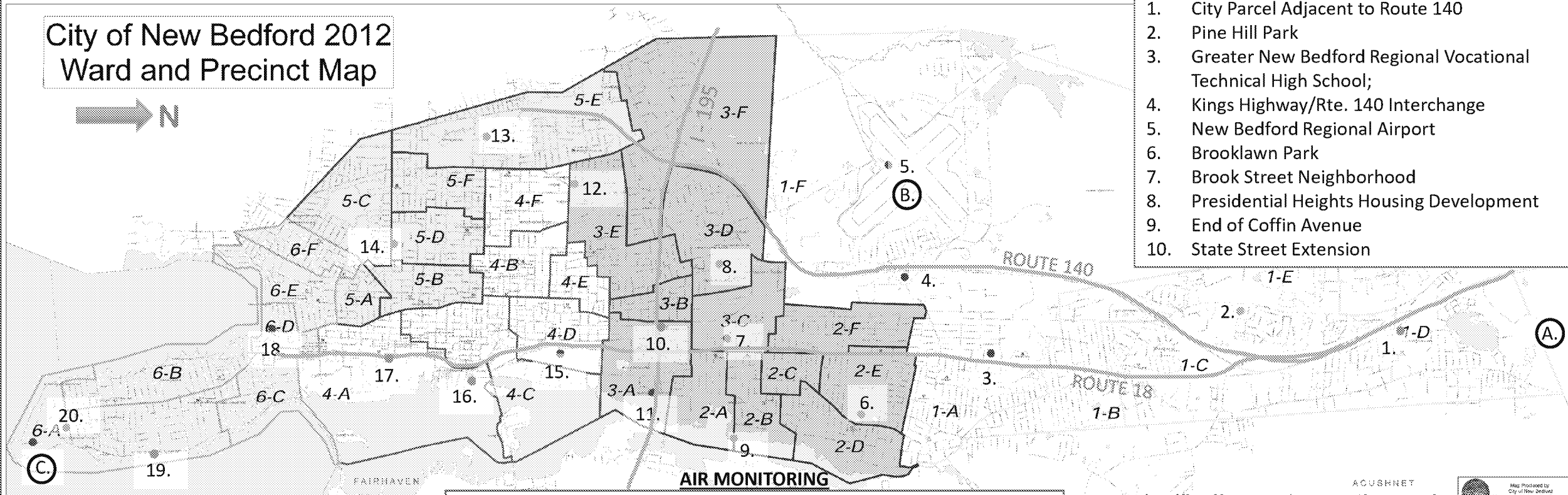
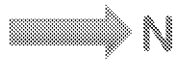
Line Item & Itemized Cost	EPA Funding
<b>Personnel</b>	
City staff time at no cost to grant	\$0
<b>Total Personnel</b>	<b>\$0</b>
<b>Fringe Benefits</b>	
N/A	\$0
<b>Total Fringe Benefits</b>	<b>\$0</b>
<b>Travel</b>	
15 miles/wk @ \$0.585/mi x 156 wks	\$1,368.90
<b>Total Travel</b>	<b>\$1,368.90</b>
<b>Equipment</b>	
Clarity Node-S Monitors (includes support services) 20@\$2,880 with 20% discount and \$1,923.85 shipping	\$59,523.85
2B Tech AQLite + VOCs 5@\$9435 with 15% discount and \$325 shipping	\$47,500.00
2B Tech AQLite re calibration at \$500x5 units x 2 years	\$5,000
<b>Total Equipment</b>	<b>\$112,023.85</b>
<b>Supplies</b>	
Outreach Materials and Supplies	\$3,000
4 Tablet Computers at \$750/unit	\$3,000
<b>Total Supplies</b>	<b>\$6,000</b>
<b>Contractual</b>	
Web-based dashboard, outreach material and report publication	\$30,000
Translation services	\$3,000
<b>Total Contractual</b>	<b>\$33,000</b>
<b>Other</b>	
<b>Subaward Costs</b>	
GWSC Executive and Programs Director \$71.39/hour x 5 hours/week x 156 weeks	\$55,684
GWSC Community Engagement Director \$54.18/hour x 5 hours/week x 156 weeks	\$42,260.40
GWSC Community, Systems, and Climate Manager \$51.59/hour x 5 hours/week x 156 weeks	\$40,240.20
GWSC Program Coordinator \$35.12/hour x 5 hours/week x 156 weeks	\$27,393.60
GWSC Green Fellow \$31.17/hour x 5 hours/week x 156 weeks	\$24,312.60
GWSC Green Team \$21.011/hour x 8 youth employees x 1.75hours/week x 156 weeks	\$45,888.02
Mileage for GWSC staff: 25 miles/wk @ \$0.585/mi x 156 wks	\$2,281.50
<b>Total Other</b>	<b>\$238,060.32</b>
<b>Indirect Charges</b>	
N/A	\$0
<b>Total Indirect Charges</b>	<b>\$0</b>
<b>Total Funding</b>	<b>\$390,453.07</b>
<b>Total Project Cost</b>	<b>\$390,453.07</b>



# CITY OF NEW BEDFORD, MA

## PROPOSED AIR QUALITY MONITORING STATION LOCATIONS

City of New Bedford 2012  
Ward and Precinct Map



### AIR MONITORING SENSOR SAMPLE LOCATION NUMBER AND DESCRIPTION (NORTH TO SOUTH)

1. City Parcel Adjacent to Route 140
2. Pine Hill Park
3. Greater New Bedford Regional Vocational Technical High School;
4. Kings Highway/Rte. 140 Interchange
5. New Bedford Regional Airport
6. Brooklawn Park
7. Brook Street Neighborhood
8. Presidential Heights Housing Development
9. End of Coffin Avenue
10. State Street Extension

### LEGEND

- 4-D CITY WARD NUMBER AND LETTER
- (A.) EXISTING CITY WEATHER STATION LOCATION
- 6. AIR MONITORING SENSOR LOCATION NUMBER FOR PM2.5 & NO2
- 1. AIR MONITORING SENSOR LOCATION NUMBER (5-STATIONS) FOR O3, PM2.5, CO2, VOCs & CO

### SENSOR SAMPLE LOCATION NUMBER AND DESCRIPTION

- |                                  |  |
|----------------------------------|--|
| 11. Belleville Avenue Playground | 17. New Bedford Port Authority Building      |
| 12. Parker Street Waste Site     | 18. Cove Road and County Street Intersection |
| 13. Buttonwood Park              | 19. Near Brittany Global Technologies        |
| 14. St. Luke's Hospital          | 20. New Bedford Cable Access                 |
| 15. MassHire Career Center       |  |
| 16. Fisherman's Wharf            |  |

### CITY WEATHER STATION LOCATIONS

- (A.) QUITTACAS WATER TREATMENT PLANT, OFF MAP, EAST FREETOWN
- (B.) NEW BEDFORD REGIONAL AIRPORT
- (C.) NEW BEDFORD WASTEWATER TREATMENT FACILITY



MAYOR  
JON MITCHELL

**City of New Bedford Conservation Commission •**  
**Department of Resilience and Environmental Stewardship**  
133 William Street • Room 304 • New Bedford, Massachusetts 02740  
Telephone: (508) 991.6188  
Conservation • Environmental Stewardship • Resilience

## ATTACHMENT 1 LETTERS OF SUPPORT



133 William Street-Room 304, New Bedford, MA 02740 - Telephone 508-991-6188

ED\_013931A\_00001094-00001



**GROUNDWORK**  
**Southcoast**

WWW.GROUNDWORKSOUTHCOAST.ORG

TO:

**Michele Paul**

**RE: Letter of Support and Commitment for Prooposal to U.S. EPA**

DATE:

**24 March 2022**

☎ 508.974.3535

✉ info@groundworksouthcoast.org

📍 17 Irvington Street, New Bedford  
Massachusetts 02745

**To Michele Paul and Whom It May Concern:**

Groundwork Southcoast (GWSC) enthusiastically supports the efforts of the City of New Bedford to increase air quality monitoring for our community. This proposed project will provide vital data across our city to determine the status of our air quality and assess where and how to best focus our efforts to increase air quality for people and the environment in our community and our neighbors. Moreover, GWSC is committing to be a partner on this project to ensure that air quality monitoring happens in our environmental justice (EJ) neighborhoods with a focus on ensuring smooth data collection and deep community based engagement to ensure that residents understand why we are collecting this data and then interpreting the data with residents and engaging residents to define the next steps on how to address air quality through understanding the data. To this end GWSC employs low-income youth and young adults from the EJ communities in which we work. We invest in youth leadership in the environment. This project will be a vital next step in educating youth and young adults about their environment, continue to invest in their community engagement skill development, and invest in their future environmental careers. In turn the youth and young adults will be vital parts of a team that is community-based and multi-lingual to do outreach and engage the community in understanding air quality, what it means to them, and to engage community members in determining how we want to create changes to improve air quality over time. There is a deep need to deepen community leadership in these efforts and GWSC is excited to be a partner to the City of New Bedford to foster these efforts.

Sincerely,

**Maura Ramsey**  
Executive Director

☎ **Phone.**  
508.974.3535

✉ **Email.**  
info@groundworksouthcoast.org

📍 **Address.**  
17 Irvington St  
New Bedford MA 02745



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

William X. Wall Experiment Station • 37 Shattuck Street, Lawrence MA 01843 • 978-682-5237

Charles D. Baker  
Governor

Kathleen A. Theoharides  
Secretary

Karyn E. Polito  
Lieutenant Governor

Martin Suuberg  
Commissioner

March 24, 2022

Michele Paul, Director  
City of New Bedford Department of Resilience and Environmental Stewardship  
133 William Street  
New Bedford, MA 02740

RE: EPA Enhanced Air Quality Monitoring for Communities

Dear Ms. Paul:

I am writing in support of the New Bedford Department of Resilience and Environmental Stewardship's application for the U.S. Environmental Protection Agency's (EPA) Enhanced Air Quality Monitoring for Communities grant opportunity. This grant will enable the City to acquire air monitoring equipment, collect and analyze data, and assess air quality across the City, including areas with Environmental Justice populations.

MassDEP can provide technical assistance and support regarding air monitoring technology issues or concerns based on its experience helping other communities with air monitoring projects.

Thank you again for your consideration of this critical funding request. We look forward to supporting the Department of Resilience and Environmental Stewardship on this grant project, if awarded, that will provide funding for the resources for the City of New Bedford to take actions to protect its vulnerable populations that are affected by air pollution and climate change.

Feel free to contact me at 978-242-1335 if I can provide any additional information.

Sincerely,

Sean Dunn, Deputy Division Director  
MassDEP Air Assessment Branch





**nbps**

**New Bedford  
Public Schools**

PAUL RODRIGUES ADMINISTRATION BUILDING 455 County St., New Bedford, MA 02740  
[www.newbedfordschools.org](http://www.newbedfordschools.org) (508) 997-4511

**KAREN A. TREADUP**  
DEPUTY SUPERINTENDENT

**ANDREW O'LEARY**  
ASSISTANT SUPERINTENDENT  
FINANCE & OPERATIONS

**THOMAS ANDERSON**  
SUPERINTENDENT

Michele Paul, Director  
City of New Bedford Department of Resilience and Environmental Stewardship  
133 William Street  
New Bedford, MA 02740  
March 25, 2022

Dear Ms. Paul,

In regard to the EPA Enhanced Air Quality Monitoring for Communities, New Bedford Public Schools (NBPS) supports the New Bedford Department of Resilience and Environmental Stewardship's proposal to the Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities grant. This grant will allow the City of New Bedford to acquire air monitoring equipment, collect and analyze data, and assess air quality across the entire city.

The vision in New Bedford's Climate Action and Resilience Plan (NB Resilient) is, *"to make New Bedford a thriving, self-sustaining city that is physically, culturally, and economically secure and ready to implement innovative approaches to preparing for tomorrow's possibilities."*

We at NBPS are interested in how this information gathered around air quality can be tied into teaching and learning. We foresee our students being able to utilize the data in cross curricular activities, both during the school day and during out of school time, that include math, science, and civics.

We know that this work will dig into how our changing climate will impact our environment in the coming years, and the urgency to act now on climate resilience is felt throughout the Commonwealth. We are excited to continue working with the Department of Resilience and Environmental Stewardship on this grant, if awarded, and hope to be successful in expanding our reach and education on impact of climate change on the environment with this funding.

Please contact Jennifer Ferland, Executive Director of Strategic Initiatives and Partnerships at (508) 997-4511 ext. 14206 or [jferland@newbedfordschools.org](mailto:jferland@newbedfordschools.org) if we can provide any additional information.

Sincerely,

Thomas Anderson  
Superintendent



CITY OF NEW BEDFORD  
JONATHAN F. MITCHELL, MAYOR

February 22, 2022

Michele Paul, Director  
City of New Bedford Department of Resilience and Environmental Stewardship  
133 William Street  
New Bedford, MA 02740

HEALTH DEPARTMENT

BOARD OF HEALTH

PATRICIA L. ANDRADE, M.D.  
KIMBERLY A. GRIFFITH, PSY.D

DIRECTOR OF HEALTH  
DAMON O. CHAPLIN

RE: EPA Enhanced Air Quality Monitoring for Communities

Dear Ms. Paul:

The City of New Bedford's Health Department fully supports and commits to assisting the New Bedford Department of Resilience and Environmental Stewardship proposal to the Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities grant. This grant will allow for the city to have analytical air monitoring equipment, data and assessment across the entire City including the Environmental Justice populations which includes the Port. The vision in New Bedford's Climate Action and Resilience Plan: NB Resilient, is "To make New Bedford a thriving, self-sustaining city that is physically, culturally, and economically secure and ready to implement innovative approaches to preparing for tomorrow's possibilities."

Currently, the Health Department is interested in having areas with increased respiratory related causes of death, high incidence of asthma and those areas that score high on the CDC's social vulnerability index monitored and analyzed for air quality, as applicable. Our department would be willing to assist in the assessment and analysis of the proposed air quality monitoring data as detailed in the Project Description section of the proposal.

New Bedford's mission of bringing about the sustained regeneration, improvement, and management of the environment by developing community-based partnerships that empower people to promote environmental well-being blends seamlessly with our efforts to create a more healthful and beautiful environment while building resilience to climate change. The City is seeking an EPA Air Quality Monitoring grant to gain the opportunity to learn for the first time what the air quality of the City is. The results of the air quality data analysis and assessment will assist the City with prioritizing where, if any, we need to focus on to improve the air quality particularly in areas of the City with our most vulnerable populations.

COVID-19 is disproportionately impacting vulnerable communities and laying bare social inequalities and health disparities. We know that efforts through the programs like this will continue to help municipalities advance strategies that protect people, places and communities from the impact of climate change. We hope that the program's emphasis on environmental justice communities will help prevent the kind of disparities in climate resilience that we saw during COVID.

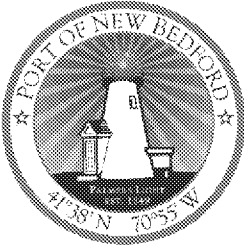
Thank you again for your consideration of this funding request. We know that the impacts of our changing climate and environment will only become more dire in the coming years, and the urgency to act now on climate resilience is felt throughout the Commonwealth.

We look forward to continuing to work with the Department of Resilience and Environmental Stewardship on this grant, if awarded, and hope to continue to be successful in expanding our reach and impact on the climate change and environment with this funding. Please contact us at 508-991-6199 if we can provide any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Damon Chaplin", with a long horizontal flourish extending to the right.

Damon Chaplin  
City of New Bedford Health Department



## NEW BEDFORD PORT AUTHORITY

123 MacArthur Drive TEL (508) 961-3000  
New Bedford, MA 02740  
WWW.PORTOFNEWBEDFORD.ORG

Thursday, 24 March 2022

Michele Paul, Director  
City of New Bedford Department of Resilience and Environmental Stewardship  
133 William Street  
New Bedford, MA 02740

RE: EPA Enhanced Air Quality Monitoring for Communities

Dear Ms. Paul:

The New Bedford Port Authority (NBPA) fully supports and commits to assisting the New Bedford Department of Resilience and Environmental Stewardship in its proposal to the Environmental Protection Agency (EPA) Enhanced Air Quality Monitoring for Communities grant. This grant will allow the City to acquire air monitoring equipment, collect and analyze data, and assess air quality across the entire City, including areas with large Environmental Justice populations. The vision in New Bedford's Climate Action and Resilience Plan, NB Resilient, is "To make New Bedford a thriving, self-sustaining city that is physically, culturally, and economically secure and ready to implement innovative approaches to preparing for tomorrow's possibilities."

Currently, the NBPA is interested in having the air quality in the port area monitored and analyzed. We know that the Port, as a transportation hub, generates some of the local pollution. We also know that many workers in the port come from adjacent Environmental Justice populations. The NBPA has an obligation to better understand the pollution produced at port facilities. With the reliable multiyear data that this project will provide, the NBPA can develop plans to reduce pollutant levels and to mitigate their effects.

The NBPA can assist in setup and maintenance of air monitoring equipment at waterfront locations. We can also provide analysis and assessment of the proposed air quality monitoring plan detailed in the Project Description section of the proposal.

The NBPA witnessed the disproportionate impact of COVID-19 on vulnerable communities. Workers from the local Environmental Justice populations are employed by the waterfront fish processing plants. These frontline workers, much like their "colleagues" in the meat packing industry, were early victims of the pandemic.



## NEW BEDFORD PORT AUTHORITY

We know that the impacts of our changing climate and environment will only become more dire in the coming years, and the urgency to act now on climate resilience is felt throughout the Commonwealth.

The NBPA looks forward to continuing to work with the Department of Resilience and Environmental Stewardship on this grant, if awarded, and hope to continue to be successful in expanding our reach and impact on the climate change and environment with this funding. Please contact us at 508-961-3000 if we can provide any additional information.

Sincerely,

A handwritten signature in cursive script that reads "Justin Poulsen".

Justin Poulsen  
Executive Director  
New Bedford Port Authority  
[justin.poulsen@newbedford-ma.gov](mailto:justin.poulsen@newbedford-ma.gov)



**March 23<sup>rd</sup>, 2022**

Re: Letter of Support for Proposal to U.S. EPA

To Michele Paul,

I am very pleased to provide this Letter of Support on behalf of the City of New Bedford and Groundwork Southcoast's proposal being submitted in response to the U.S. EPA's Enhanced Air Quality Monitoring for Communities RFA.

At Clarity we transform how cities, governments, and communities understand and respond to air pollution with next-generation, IoT-based air quality monitoring technologies. Since 2014, Clarity's air monitoring solutions have been deployed with government and/or community partners in over 65 countries, across six continents – including collaborations with the U.S. EPA, U.S. State Department and numerous State Agencies throughout the U.S.

Should the proposed project be selected for funding, Clarity will support the design, planning and deployment of the proposed air monitoring sensor network which includes twenty (20) Clarity Node-S air monitors measuring PM<sub>2.5</sub> and NO<sub>2</sub> in real-time for a period of three years. Clarity will additionally provide continuous support within the scope of our Sensing-as-a-Service air monitoring partnership to our project partners, as well as explore additional regional or programmatic synergies with other deployed projects throughout the State of Massachusetts, such as our collaboration with the City of Boston.

Due to our great respect for the community-focused mission and fantastic collaboration with the City of New Bedford and Groundwork Southcoast on this project proposal, we are pleased to be provide a 20% Community Discount on our Sensing-as-a-Service pricing, representing a total of \$14,400 USD in "in-kind" matching funds over the proposed three-year monitoring duration of the proposed work!

If you have any questions regarding this Letter of Support, the referenced "in-kind" matching funds, or Clarity's Sensing-as-a-Service air monitoring solutions please do not hesitate to contact me at the mobile number or email below.

We very much look forward to this proposed partnership and a continued collaboration to better the environment for the all community members within the City of New Bedford.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sean Wihera'.

Sean Wihera  
VP, Business Development and Partnerships  
Clarity Movement  
E: [sean@clarity.io](mailto:sean@clarity.io)  
M: +1-925-876-3381

March 24<sup>th</sup>, 2022

Letter of Support for Proposal to U.S. EPA

To Courtney Cohen and whom else it may concern,

2B Technologies is proud to provide this letter of support to the City of New Bedford and Groundwork Southcoast as they submit a proposal in response to the RFA from the U.S. EPA for Enhanced Air Quality Monitoring for Communities.

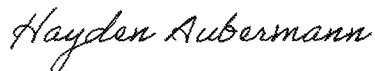
Here at 2B Technologies we are dedicated to the development and commercialization of new analytical instruments for atmospheric and environmental measurements. We specialize in miniaturized instruments for measurements of ozone (O<sub>3</sub>), nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), mercury (Hg), and other chemical species in air. 2B Tech's goal has always been to use sound science and innovative technology to provide our customers with cutting-edge instrumentation.

2B Technologies will provide the City of New Bedford and Groundwork Southcoast with our expertise and knowledge in the form of technical support, calibration/service, and any other necessary after-sales guidance that is required to deploy five (5) of our AQLite Air Monitoring Packages as part of their proposal. We have worked to sell more than 9,000 instruments around the globe since 1998 and strive to always maintain excellence when it comes to support and guidance of our customers.

To aid in the successful development in the community-based air quality infrastructure outlined in their proposal, 2B Technologies is willing to provide the City of New Bedford and Groundwork Southcoast with a 15% discount toward the purchase of the AQLite Air Monitoring Packages.

Please feel free to contact me if you have any questions if you have any questions about this letter. 2B Technologies is very much looking forward to working with the City of New Bedford and Groundwork Southcoast on this exciting project.

Sincerely,



Hayden Aubermann  
Outside Sales & Marketing Manager  
2B Technologies  
O: (303) 273-0559  
D: (720) 674-2343  
[hayden@twobtech.com](mailto:hayden@twobtech.com)



MAYOR  
JON MITCHELL

**City of New Bedford Conservation Commission •**  
**Department of Resilience and Environmental Stewardship**  
133 William Street • Room 304 • New Bedford, Massachusetts 02740  
Telephone: (508) 991.6188  
Conservation • Environmental Stewardship • Resilience

## ATTACHMENT 2 KEY PROJECT PERSONNEL



133 William Street-Room 304, New Bedford, MA 02740 - Telephone 508-991-6188



**Michele S.W. Paul, LSP, Director**  
**Department of Resilience and Environmental Stewardship**  
**City of New Bedford, MA**  
[michele.paul@newbedford-ma.gov](mailto:michele.paul@newbedford-ma.gov)

**PROFILE**

Environmental professional and community advocate with over 30 years of experience managing multi-faceted and complex public and private projects to enhance and improve environmental quality

**PROFESSIONAL SUMMARY**

**City of New Bedford, MA (July 2012 to present) – Director of Resilience and Environmental Stewardship**

- Initiate and coordinate City-wide resilience initiatives – Identify vulnerable populations and built assets and develop/update a Resilience Strategy unique to New Bedford that encompasses infrastructure, Brownfields revitalization, natural resource protection and restoration, and environmental health equitably
- Measure the progress of the resilience strategy with specific outcomes and metrics that establish the roles and responsibilities of all stakeholder groups. Identify and manage funding opportunities to sustainably implement resilience priorities, and coordinate the integration of environmental management and resilience practices into policies, services and operations; and
- Apply for and oversee City Brownfields Programs Cooperative Agreements including: Hazardous Materials Assessment; Hazardous Materials Cleanup; Environmental Workforce Job Training; Brownfield Multipurpose Grant; Brownfields Revolving Loan Fund.

**Fall River Office of Economic Development – Licensed Site Professional, Project Director, Harbor Coordinator**

- Provided project management services for the Fall River Redevelopment Authority and the Office of Economic Development, working with multiple state agencies and programs including the Massachusetts Seaport Council, and MassDevelopment, MassWorks, and the office of Housing and Community Development; and
- Managed the City's Brownfields efforts including grant application, project procurement and oversight, and reporting.

**Vanasse Hangen Brustlin, Inc. – Licensed Site Professional, Sr. Project Manager, Brownfields Coordinator**

- Lead Brownfield redevelopment efforts to revitalize underutilized areas and stimulate economic development;
- Coordinated work among VHB's disciplines to cross-sell and to provide maximum service toward total project success; and
- Spearheaded the pursuit of grants and alternate funding sources for publicly-owned endeavors.



133 William Street-Room 304, New Bedford, MA 02740 - Telephone 508-991-6188

**MICHELE S.W. PAUL**

**PAGE 2 OF 2**

**Licensure:**

Massachusetts Licensed Site Professional, 2001 to present

**Education:**

B.S., Civil Engineering, University of Massachusetts at Dartmouth, 1989

Masters Coursework - Public Policy (Economic Development concentration), University of Massachusetts at Dartmouth

Community Preservation Institute, Certificate Program, University of Massachusetts, 2002

Certificate, Business Leadership Program, Bryant College, Smithfield, RI, 2001

**Professional Participation:**

Massachusetts Licensed Site Professional Association:

Board of Directors 2017 – present , President 2019-2021

Education Committee 2010 – present; Chair 2011, 2012, 2014; Co-chair 2015-present;

Legislative Committee 2016 – present

Massachusetts Municipal Association Energy and Environment Committee – 2018 – present

Swansea Advisory and Finance Board – September 2014 – present

MassDevelopment Brownfields Advisory Group – 2015 – present

MassDevelopment New Market Tax Credit Advisory Board – 2015 – present

MassDEP Waste Site Cleanup Advisory Committee 2015 – present

MassDEP Greener Cleanups Working Group 2013 – 2016

Fall River Area Chamber of Commerce, Economic Development/Legislative Affairs, and LNG Committees – 2001-2012

Leadership SouthCoast, graduate – 2007, board member – 2008 -2016

Neponset Valley Chamber of Commerce, Development Alliance and Economic Development Committee – 2001-2005

Swansea Board of Health, member - 1992 through 1997



**COURTNEY E. COHEN, Environmental Project Manager**  
**Department of Resilience and Environmental Stewardship**  
**City of New Bedford, MA**  
[courtney.cohen@newbedford-ma.gov](mailto:courtney.cohen@newbedford-ma.gov)

**PROFILE**

Civil and environmental engineering professional background for over 20-years, working in both the private consulting and public environmental health fields. Recently began working in the City however my entire career has included projects within Southeastern Massachusetts and focused on improving the area in all facets from development, rehabilitation, environmental assessment and clean-up.

**PROFESSIONAL SUMMARY**

**City of New Bedford, MA (October 2021 to present) – Environmental Project Manager,  
Department of Resilience and Environmental Stewardship**

- Manage contaminated site projects at City properties; coordinates with environmental consultants and engages in community outreach; interfaces with the public to address concerns regarding impacted properties; works on interdepartmental resilience and sustainability initiatives.
- Coordinates and communicates assessment and remedial activities to applicable city department administration and staff, regulatory agencies, private property owners and the public, exercises sound judgment in technical and policy issues.

**Town of Dartmouth, MA (2014-2021) – Health and Sanitary Inspector, Board of Health**

- Administratively provided engineering plan review for State Code compliance and communicated responses through Town letters and permits to engineers, residents and businesses. Facilitated payment and receipt filing and processing and performed general office coordination tasks.
- Performed health and sanitary related inspections for over 20 various State, Federal and Local Health Regulations, Laws, Codes, Guidelines and Policies. Most inspections were related to Massachusetts Title 5 Subsurface Sewage Disposal System (SSDS) work. Seasonally, collected marine water samples for the Town beaches. Reviewed and analyzed laboratory data for private drinking water wells, asbestos samples related to demolition and soil samples for sieve analysis relative to applicable State requirements. Coordinated and communicated with interdepartmental offices including Department of Public Works, Conservation Commission, Building Department and Tax Collectors Office for all major and minor permitting projects.

**Prime Engineering, Inc., Lakeville, MA (2003-2014) – Principal Office Administrator and Project Engineer**

- Performed design, analysis and layout tasks related to engineering and land surveying for various civil and environmental projects. Focused on the many phases of permitting, assessment, remediation, and reporting as a project engineer including local municipal by-laws, Massachusetts Contingency Plan, RCRA, CERCLA, NPDES and various other regulations. Assisted the company President and Chief Engineer as the administrator for all human resource related needs including insurances, payroll, and billing. Conducted general office management for a 20-person office consisting of civil engineering, land surveying and environmental assessment departments.



133 William Street-Room 304, New Bedford, MA 02740 - Telephone 508-991-6188

**COURTNEY E. COHEN**

**PAGE 2 OF 2**

**Tata & Howard, Inc., Westboro, MA (2001-2003) – Engineer**

- As a Civil and Environmental Engineer, I was responsible for preliminary water and sewer main design services and their related fieldwork, permitting and specification requirements. Tasks included research and design of water and wastewater treatment facilities and resident engineering experience for the above-mentioned services including sampling and testing both the water/wastewater treatment systems and infrastructures, along with interaction professionally with project managers, engineers, and contracted employees.

**Licensure:**

Massachusetts Septic Inspector (License 13935 Exp. 06/30/2023)

Massachusetts Soil Evaluator (License 13935 Exp. 06/30/2022)

National Certified Pool and Spa Operator (EXP. 03/2025) Wetland

Delineation Workshops through MACC

40-Hour OSHA HAZWOPER Training Certificate (2003 - present)

30-Hour OSHA Maritime Training Certificate (2021)

Asbestos Certified Worker Initial 16-Hour Training (2022)

Current American Red Cross First Aid and CPR Certificate

**Education:**

B.S. Civil and Environmental Engineering, Worcester Polytechnic Institute, Worcester, MA, 2001

**Professional Participation:**

YMCA Southcoast, MA Board Member (2021-Present)

Dartmouth Town Employee Association Union President (2019-2021)

Dartmouth Girls Athletic League (DGAL) Secretary and Board Member (2014-Present)

DGAL Field Hockey Program Co-Commissioner and Coach (2014-Present)

Dartmouth Youth Lacrosse Club, Inc. Secretary, Board Member and Assistant Coach (2018-Present)



## Ex. 6 Personal Privacy (PP)

### LEADERSHIP

- Mission-Aligned
- Collaborative
- Entrepreneurial
- Strategic
- Anti-Racist
- Community-Weaver
- Flexible/creative
- centered
- High Integrity
- Dedicated

### EMPLOYMENT

**3/2017- Present** **Executive Director, Groundwork Southcoast;** Fall River and New Bedford, MA

- Transformed concept into reality: Developed and launched organization: strategy, operations, and programs.
  - Increased funding from 1 source of \$100k (for 3 yrs) in FY1 to 27 varied sources in FY5; FY6 budget of \$450k and \$950k+ budget anticipated by FY9 (2024). 32% average annual budget increase FY1-FY5.
  - Added 2<sup>nd</sup> full time staff in 2018, 3<sup>rd</sup> in 2021, and 4<sup>th</sup> is youth to youth leader now in 12mo coaching transition to full time. Positioned for doubling staffing again by 2024;
  - Developed board: 0% BiPOC in 2017 to 54.5% in 2021; 20% femme and 80% masculine identified in 2017 to 72.7% femme, 9% masculine, and 18% gender non-conforming in 2021; 40% historically low-income in 2017 to 63.6% in 2021; 20% young adult in 2017 to 36% in 2021.
- Maintain 90%+ youth employment/programming retention rate; including annually increasing youth employment hours; Developed 30+ cross-sector collaborations to achieve and integrated key modalities including: Leadership Development, Trauma Informed Practice, Narrative Framework and Practice, Quantitative Evaluation, and Racial Equity lens into organizational, programmatic, and board structures
- Launch 4 program areas that centered youth leadership including:
  - GWSC's First urban agriculture and community garden management project-transformed abandoned site into- first fully enclosed community garden on public property in the city of New Bedford; expanded 25 to 150 beds; increasing 500lb yield to 2,000lb yield by 2024 and ensuring free for low income residents
  - GWSC's First Streetscapes and landscaping installation and maintenance program and GWSC's First Urban Trails Project maintaining 2mi of trails and launching innovative virtual placemaking and trash mitigation
  - GWSC's First Tree management programs: urban fruit trees, increasing urban tree canopy, and GWSC's First resiliency and environmental restoration projects
  - GWSC's First Area-wide cross-sector integrated strategic planning to integrate work of GWSC with city, regional, state, non-profit, and community partners

**2/2015-2/2017** **Massachusetts State Lead Organizer, Mothers Out Front;** Cambridge, MA

- Hired into young start-up: assessed, shifted, and created a replicable and scalable state-based model that was utilized across the organization which served a membership of over 5,000 volunteers and was poised to serve as a model of expansion within MA as well as into 10 states in the 5 years; including:

- Doubling the number of volunteer teams and launched campaigns;
- Integrated into org and volunteer framework including leadership development, data evaluation, and Racial Equity;
- Hired and retained most racially, gender-identified, and class diverse team in a national organization.

3/2007-2/2015

**Director, South Street Youth Center; Boston, MA**

- Built-out: from 1 to 5 programs for youth: Expanded youth center: integrating strategy, capacity, operations, and programmatic development.
  - Quadrupled programs
  - doubled enrollment
  - Increased/ added 6 additional youth employment or stipended positions
  - transformed outcomes from 75% drop out and incarceration rate to 100% on track to attain a bachelor's degrees
  - Increased from 1-2 volunteers per week to a 3:1 youth to volunteer ratio at homework programs
  - Fostered a youth leadership centered culture of safety and community
  - Developed org operational systems and processes
  - Cultivated a web of support of cross sector collaborations and neighborhood connections

2005- 2007

**Career Development Specialist, Mass Bay Employment Service; Boston, MA**

- Assisted/ coached adults on vocational/educational goals including resume writing and interview prep; who were in Mental Health recovery or receiving public assistance.

2003- 2004

**Teacher, Jesuit Volunteers International; South Africa**

- Taught Science/English/Drama to 6<sup>th</sup>-7<sup>th</sup> grades; Developed/Implemented English games curricula for 1<sup>st</sup>-3<sup>rd</sup> grade students; ~60 students per class.

2002- 2003

**Social Work Intern, Health Resource Center, Inc.; Cincinnati, OH**

- Assisted running homeless/addicted teens "drop-in" center; lobbied for local Homeless Coalition.

## EDUCATION|CERTIFICATIONS & CONTINUING EDUCATION

2003

**Bachelors of Social Work, Xavier University; Cincinnati, OH**

### Certificates:

- Institute for Nonprofit Practice Certificate from Tisch College, Tufts University 2018
- Leadership, Organizing and Action from Harvard-Kennedy Extension School 2015
- Violence Prevention 2009; Psychological 1<sup>st</sup> Aid and Trauma Response 2008, 2009, 2010
- BEST Certificate Trainings: Youth Worker 2007; Supervisory 2008

### Training:

- Racial Justice and Equity with a focus on Racial Justice Framing and anti-oppression perspective

\*References Furnished Upon Request

- **Consulting:**
  - Coached and provided workshops and training for 15+ Executive Directors on Remote work transition; including effective staff management, programmatic and community engagement shifts, and best practices for guiding strategic reframing
  - Anti-Racism - Racial Justice and Equity Trainings co-facilitated with a Person of Color; individual and small group coaching for white identified individuals in similar stages of Racial Identity Development.
- **Awards:**
  - Organizational Commendation: MA State House of Representatives 2010
  - Organizational Community Commendation Award: Jamaica Plain Community Development Corp 2010
- **Volunteer:** Trauma Responder Jamaica Plain, Active 2008- 2014; Occasional 2014- present
- **Spanish:** Conversational; language immersion studies: Guatemala '09; Dominican Republic; '04 Nicaragua '01

# Eric Andrade

## Ex. 6 Personal Privacy (PP)

### WORK EXPERIENCE

July 2019 to Present                      Mass in Motion Taunton/Old Colony YMCA                      Taunton, MA  
Coordinator

- ✧ Participated in Open Space and Recreation planning
- ✧ Implementation of Community Health Inclusion Index grants to improve mobility and disability access
- ✧ Promote healthy food options through Fair Foods program, distributing over 10,000 lbs of food in 2021.

July 2018 to Present                      Groundwork Southcoast                      New Bedford, MA  
Program Manager (2018-2021) Community, Systems, and Climate Manager (2021-Present)

- ✧ Oversee the Green Team youth development program (Staff of 6-15 youth)
- ✧ Coordinate various initiatives including Climate Safe Neighborhood Program
- ✧ Create visual marketing and promotion for the company and engage followers on social media
- ✧ Oversee/ Participate in programmatic operations, including construction projects, volunteer events, fundraisers, farmers markets, etc

Feb 2014 to October 2018                      Mass in Motion Fall River / SSTAR                      Fall River, MA  
Health Promotion Coordinator

- ✧ Worked with Fall River Senior “Champions” to promote healthy aging (walking/eating) with seniors.
- ✧ Conducted focus groups, walkability audits (With Walk Boston) and street safety analysis
- ✧ Successfully coordinated installation of new “piano-key” crosswalks and “in-street crosswalk signs” throughout the city with Public Works, Planning, and Traffic departments.
- ✧ Collaborate with local neighborhood markets to promote healthy food options and potentially reduce prices to attract Seniors to shop locally within Fall River.
- ✧ Coordination of CDC 1422 grant – yearly workplan creation, management and progress reporting

August 2008 to May 2015                      Philips Lightolier                      Fall River, MA  
Design Assistant

- ✧ Produce 3D models/ 2D drawings of lighting fixtures and components.
- ✧ Communication and Distribution of product information through email to Global partner companies. (Mexico, Canada, Taiwan)
- ✧ Entering sales/purchasing information for products into universal database called Glovia.
- ✧ Communication with sales force/customer service to place orders for products.

### EDUCATION

#### University of Massachusetts Dartmouth

Bachelor's Degree – Sociology w/ Anthropology Option

- ✧ Final GPA of 3.85 – Highest GPA in Anthropology Option & Ranked Summa Cum Laude
- ✧ Continued involvement with Sociology Department as consultant to Fall River Portraits Grant, highlighting life and landscape throughout the city



# Ronice Rodrigues

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**Ex. 6 Personal Privacy (PP)**

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## OBJECTIVE

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Criminal Justice Major attending Bristol Community College until 2021. Born in Praia, Cape Verde, Speaks Creole (portuguese), and English. Applied Behavioral Analysis Therapist at Behavioral Connections in New Bedford until 2020. Carries prior experience in Customer Service, Dietary Aide. Currently employed at Saint Vincents, a group home in Fall River as a residential counselor.

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## CORE COMPETENCIES

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Software: Microsoft Word, Excel, PowerPoint; Literature searches - APA and MLA formats - HIPAA Confidentiality - Interpersonal Communication  
CPA certified  
MAP trained

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## ACADEMIC / RESEARCH ACHIEVEMENTS & EXPERIENCES

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**Bristol Community College | Fall River, MA**  
**Criminal Justice Major**

**Sept 2017- Present**

- Volunteered at Youth Court - B.M.C. Durfee High School 2015
- Member of Fall River Movement - Fall River MA 2020
- General Psychology, Corrections, Police & Community Law, Intro to Criminal Justice- Bristol Community College
- Academic Accommodation, Bristol Community College Spring Semester 2018

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## CAREER ACHIEVEMENTS AND EXPERIENCES

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**Fall River Health Care, Fall River, MA**  
**July 2016**

**Dietary Aide**

- Meal Preparation
- Dishwasher

**Papa Gino's, Fall River, MA**  
**May 2018**

**Delivery driver**

- Handled Money/cleaning.

- Delivered Food

**Behavioral Connections, *New Bedford, MA***  
**May 2019**

***ABA Therapist***

- Apply and help utilize ABA principles to children with autism.
- Help apply ABA principles to everyday natural environments/situations.
- Help to motivate children through positive reinforcement.

**August 2020**

***Residential Counselor at Saint Vincents***

- Provide therapeutic support to kids with physical, sexual or emotional trauma.
- Teach kids everyday living skills.
- Encourage kids with positive reinforcement.

References available upon request

**Jamie Berberena**  
**Ex. 6 Personal Privacy (PP)**

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♦Driven public health professional who is entrepreneurial, innovative, and passionate about improving population health through culturally-responsive health promotion, upstream communication strategies, public policy and advocacy.

♦Experienced trainer in facilitating community health education curricula focused on social determinants of health, eliminating health disparities through coordinating culturally- and linguistically-tailored delivery of evidence-based community health improvement programming.

**SKILLS AND QUALIFICATIONS**

**♦Program Development & Strategic Planning ♦Public Policy & Health Equity ♦Project Management  
♦Worksite Wellness & Health Education ♦Trainer ♦Bi-Lingual-Spanish/English ♦Interpreting &  
Translation ♦Tobacco Treatment Specialist ♦Community Health Consultant ♦Culturally Competent**

**Professional Highlights**

- CHW core competency trainer: Facilitation of client advocacy and care coordination sessions where CHWs learn client-centered advocacy skills, establish relationships with providers and community partners to benefit the client and build a network of community resources and professional supports. key elements and activities of care coordination, including facilitating referrals, providing direct support, follow-up and creating care plans that address social determinants of health.
- MA Public Health Association Equity Task Force, make recommendations to ensure a safe and equitable reopening including advocating for a progressive approach to investing in state's recovery in response to COVID-19 pandemic.
- MA League of Community Health Centers *COVID-19 Vaccine Campaign*, CHW advisory on community-specific engagement mechanisms.
- New England Public Health Training Center, planning and holding webinars in key public health competency areas, including seminars, workshops, and web-based courses to enhance CHW workforce public health resources, skills and knowledge.
- MA Association of CHWs, developed Community Health Worker regional chapter, platform to cultivate CHW workforce professional identity and competencies through mentoring, orienting, education and training.
- Medical Spanish Interpreter: Provide Spanish language services to non-English-speaking patients, maintain confidentiality while providing culturally and linguistically appropriate services to assist in accurately communicating with doctors, nurses and other medical staff.
- Work with policy makers to build regional capacity, research, survey, evaluate & collect data.
- Promote effective strategies to reach vulnerable populations in their communities and in their native language utilizing evidence based CHW methodologies to ensure cultural sensitivity.
- Examine efficiency and make recommendations of clinical & community based organizations.
- Identify priority environmental & system changes to improve health & safety of residents.

- Cooperated with interdisciplinary teams to develop a cross-sector health campaign to improve heart and lung health across the South Coast region by implementing tobacco-free policies.
- Executed tobacco-free strategies within public and private multi-unit housing in New Bedford; provided direct support & technical assistance of smoke free policy at New Bedford Housing Authority.
- Facilitated landlord/ property-owner training, promoted tobacco cessation & smoke free environments. Organized public health & wellness education forums in collaboration with SouthCoast Health; delivered health information using culturally appropriate terms and concepts.

### Education

**University of Massachusetts Dartmouth**  
**Bristol Community College**

Sociology and Anthropology, B.A. Candidate 2022  
Associates Degree in Liberal Arts, 2005

### Career Track

MASSACHUSETTS ASSOCIATION OF COMMUNITY HEALTH WORKERS	BOSTON, MA	JANUARY 2015- PRESENT
SOUTHCOST HEALTH	NEW BEDFORD, MA	JANUARY 2016- PRESENT
JUSTICE RESOURCE INSTITUTE	BOSTON, MA	JUNE 2017- JUNE 2019
CITY OF NEW BEDFORD HEALTH DEPARTMENT	NEW BEDFORD, MA	MARCH 2014- JUNE 2017
YMCA SOUTHCOAST	NEW BEDFORD, MA	MARCH 2013- SEPT. 2014
NEW BEDFORD WORKFORCE DEVELOPMENT	NEW BEDFORD, MA	OCTOBER 2008- OCT.2012
NORTHSTAR LEARNING CENTER	NEW BEDFORD, MA	SEPTEMBER 2006- OCT.2008
PACE FAMILY CENTER	NEW BEDFORD, MA	JANUARY 2005- OCT.2006

### BOARDS & COMMITTEES:

- ♦Boston University School of Public Health & New England Public Health Training Center, Advisory Committee
- ♦Massachusetts Public Health Association (MPHA), Policy Council & Equity Taskforce on Coronavirus-19
- ♦MA League of Community Health Centers *COVID-19 Vaccine Campaign*, CHW advisory
- ♦Massachusetts Association of Community Health Workers (MACHW), Advisory Board
- ♦Southcoast Health, Community Benefits Advisory Committee
- ♦New Bedford Homeless Provider Network, Racial Equity Committee
- ♦Community Health Network Area (CHNA 23 & 26)

### CERTIFICATIONS:

- ♦Certified Spanish Medical Interpreter
- ♦Chronic Disease Self Management(CDSMP) Bi-lingual Leader (*Stanford*)
- ♦Naloxone (Narcan) Administration ♦CPR/First Aid ♦Suicide Prevention
- ♦Motivational Interviewing ♦PRYOR Professional Leadership & Project Management
- ♦Tobacco Treatment Specialist (TTS) ♦Accidental/ Health Insurance Producer